OBJECTIVES: Anti-tumour necrosis factor inhibitor (anti-TNF) therapy has been widely and successfully used in patients with rheumatoid arthritis (RA). However, about 30% of these patients have an inadequate response to these medicines. Abatacept has shown significant clinical and functional benefits in patients who have inadequate response to anti-TNF therapy. The aim of this analysis is to examine the cost-effectiveness of abatacept after the failure of a first anti-TNF. **METHODS:** A patient simulation model was constructed using clinical data from the (abatacept) ATTAIN trial and the British Society for Rheumatology Biologics Register (BSRBR). The time horizon of this model was lifetime. Clinical effectiveness was evaluated by changes in Health Assessment Questionnaire (HAQ) score from baseline up to 12 months. Patients discontinued treatment due to a lack of efficacy or adverse events. After treatment discontinuation, patients received supportive care, regardless of treatment group. Utilities were obtained by mapping HAQ to EQ-5D. Cost inputs included drug and administration, monitoring, medical costs associated with HAQ level, and joint replacement costs obtained from published literature and inflated to 2009 British pounds. **RESULTS:** Abatacept was estimated to yield 1.06 additional quality-adjusted life years (QALYs) per patient (3.28 vs. 2.22) over a lifetime, compared to conventional DMARDs. The total lifetime costs associated with abatacept were £46,522 and total costs for conventional DMARDs were £17,025, resulting in an incremental cost-effectiveness ratio (ICER) of £27,936 per QALY gained. Probabilistic and univariate sensitivity analyses confirmed the robustness of our findings. **CONCLUSIONS:** Abatacept is a cost-effective treatment option for patients with RA after the failure of a first anti-TNF in the UK.

PMS32

ECONOMIC ANALYSIS OF ETANERCEPT IN RHEUMATOID ARTHRITIS FROM A PUBLIC PERSPECTIVE IN VENEZUELA

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OBJECTIVES: Rheumatoid Arthrtis (RA) leads to significant impact on management costs and patient's quality of life. In Venezuela, annual per capita cost for RA management increased from 698USD in 1997 to 3494USD in 2002. Biologic treatment after disease-modifying antirheumatic drugs fail is an alternative, but their high cost represents a challenge for decision makers. This study aims to perform cost-effectiveness and cost-utility analysis of biologic alternatives for moderate to severe RA in Venezuela. **METHODS:** An economic analysis was developed through a decision-tree model to simulate RA evolution after treatment with etanercept (basecase treatment), adalimumab, infliximab, tocilizumab or rituximab as first-line therapies and their associated costs over a 12-month time horizon. Therapy continuation or switch was evaluated at week 24. Effectiveness measures were ACR70 response and quality adjusted life years (QALYs) gained. Direct medical costs included biologics, concomitant drugs, medical follow-up and adverse events management. Clinical response was extracted from published literature, while costs were collected from Venezuelan public official databases. Probabilistic sensitivity analyses were performed through Monte Carlo Simulation second-order approach. **RESULTS:** In base case analysis estimated effectiveness resulted in [ACR70,QALY]: etanercept [31.3%,0.79]; adalimumab [18.1%,0.77]; infliximab [12.8%,0.73]; tocilizumab [21.1%,0.77] and rituximab [11.9%, 0.75]. Expected mean costs per patient were 13,588USD, 15,451USD; 15,950USD; 18,705USD and 14,350USD, respectively. In cost-effectiveness and cost-utility analysis, etanercept was the least costly and the most effective alternative being cost-saving in all comparisons: 5117USD less than tocilizumab (most costly alternative); 19.4% more patients met ACR70 response regarding rituximab (the least effective alternatives); incremental utility reached +0.0576 QALYs versus infliximab. Acceptability curves showed that etanercept regardless willingness to pay would be the most cost-effective biologic. **CONCLUSIONS:** Due to its lower costs and favorable effectiveness profile, etanercept is dominant regarding ACR70 response and QALYs gained over other biologic treatments in the management of RA at Venezuelan public health care system.

PMS33

ECONOMIC EVALUATION OF INTRAVENOUSLY IBANDRONATE FOR THE TREATMENT OF POSTMENOPAUSAL OSTEOPOROSIS IN MEXICO

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OBJECTIVES: Osteoporosis (OP) and fragility fractures (FF) significantly affect both mortality and health-related-quality-of-life, causing high costs. We aimed to determine the cost and the effectiveness of three different bisphosphonates (BP) in Mexico. **METHODS:** A six health-state life-time Markov microsimulation model was adapted to compare intravenously (IV) ibandronate 3mg injection every 3 months (IBD), oral weekly (OW) alendronate 70mg (ALD) and OW risedronate 35mg (RSD), under the perspective of the public health care system in Mexico. Target population consists of postmenopausal (PW) women over 50 years with or without prior fracture. Only direct costs were accounted for and these included drug acquisition and acute medical attention of FF. All costs are expressed in 2009 United States dollars (USD). Unit cost and antifracture efficacy was derived from published literature. Outcomes measures were the type and frequency of FF avoided with each agent compared with no treatment and quality-adjusted life years (QALY). Cost and efficacy were calculated taking into account persistence and compliance data. **RESULTS:** The avoided fractures rate was higher with IV IBD (644 per 10,000 patients Vs. 205 and 203 with ALD and RSD, respectively). When compared with OW BP, IV IBD reduced the total FF frequency in about 10%. Hence, the use of IV IBD resulted in a gain of 37 QALY per every 1,000 patients. The incremental cost per QALY gained with IV IBD ranged from 9898 USD (vs. ALD) to 15,047 USD (vs. RSD). The gross domestic product per capita in Mexico during 2009 was estimated at 8337 USD. Results were robust to variation in all parameters. **CONCLUSIONS:** By reducing significantly the number of doses needed per year, IV IBD improves adherence and decrease the expected frequency of FF in comparison with OW BF. These results suggest that IV IBD is a cost-effective intervention for PM OP in Mexico.

PMS34

COST-EFFECTIVENESS ANALYSIS OF BIO- HYALURONIC ACID (HA) IN PATIENTS WITH KNEE OSTEOARTHRITIS IN MEXICO

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BACKGROUND: Osteoarthritis (OA) is the most common rheumatic disease in the world and one of the main causes of joint pain and disability of the adult population; it therefore represents an important use of medical resources for the institutions and compromises the quality of life of patients. **OBJECTIVES:** To analyze the cost-effectiveness of Bio-HA vs. Hilano G-F20 in patients with knee osteoarthritis. **METHODS:** We conducted an economic evaluation. The alternatives to compare were Bio-HA vs Hilano, administered three weekly injections, with follow-up evaluations at week 12. The perspective is the Mexican Social Security Institute (IMSS). The economic model included the cost of drug acquisition and management of adverse events (AE). The use of resources associated with each AE was defined according to a Delphi Panel. The efficacy measure was the proportion of patients with OMERACT-OARSI response, obtained from a head to head analysis (Onel E, 2008). **RESULTS:** The response rates for Bio-HA were 71% versus 63% for Hilano. The knee effusions in patients treated with Bio-HA was 0.6% (MX$39) vs. Hilano 8.1% (MX$531). The cost per patient treated for each alternative was MX$7728 and MX$8338 for Bio-HA and Hilano, respectively. The cost per responder patient was lower for Bio-HA than Hilano, MX $10,885 and MX $13,236, respectively. So, the savings generated by Bio-HA are very high. If we consider the 1,000 patients for each alternative, the savings would be MX$610,000 and this money be useful to purchase an extra 122 cycles of treatment with Bio-HA or to be reassign for other therapeutic areas. Considering all the above Bio-HA proved to be a dominant strategy (less costly and more effective). **CONCLUSIONS:** The results of this pharmacoeconomic analysis suggest that the use of Bio-HA in patients with OA is a cost-saving strategy for the institutions of public health in Mexico.

PMS35

A COST-EFFECTIVENESS ANALYSIS OF DENOSUMAB FOR THE TREATMENT OF POST-MENOPAUSAL OSTEOPOROSIS IN GREECE

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OBJECTIVES: To evaluate the cost-effectiveness of denosumab compared to supportive care (no active osteoporosis treatment), alendronate, ibandronate, risendronate and strontium ranelate for the treatment of women with post-menopausal osteoporosis (PMO) in Greece. **METHODS:** An 8-state, 6-month cycle Markov cohort model was developed in order to estimate costs and effects, i.e. reductions in fracture occurrence, of denosumab vs. comparators for a 5year period, from a third-party payer perspective (Euros, 2011). The model was populated according to the characteristics of the FREEDOM clinical trial population (mean age: 72.3, prevalence of vertebral fracture: 23.6%, femoral neck T-score ≤ -2.5), that also provided the data on efficacy of denosumab. Data on efficacy (relative risk of fractures) for the comparators were taken from a published meta-analysis. The model took into account treatment persistence across all comparators, as well as a 2year residual effect of treatment after discontinuation. **RESULTS:** The base-case analysis showed that the incremental cost per QALY gained with denosumab was €18,813, €24,784, €13,727, €18,436 and €11,114 versus no treatment, alendronate, ibandronate, risendronate and strontium ranelate, respectively. The probabilistic sensitivity analysis demonstrated that denosumab was cost-effective in an implicit €30,000 threshold for 81.6% of the iterations versus no treatment and risendronate, 63.4% versus no treatment and alendronate and 88.2% versus no treatment and ibandronate. Univariate sensitivity analyses showed that changes in persistence rates, baseline age and T-score where the factors with the most significant influence in the results. **CONCLUSIONS:** In a disease that entails a significant morbidity and socioeconomic burden, denosumab seems to be a cost-effective alternative to established treatment regimens for osteoporosis in Greece.

PMS36

ECONOMIC ANALYSIS OF ETANERCEPT IN RHEUMATOID ARTHRITIS FROM A PUBLIC PERSPECTIVE IN COLOMBIA

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OBJECTIVES: Rheumatoid Arthrtis (RA) leads to significant impact on management costs and patient's quality of life if no therapeutic measure is adopted and represents one of five most common incapacity causes in women aged 15-44 years, in Colombia. Biologic treatment after disease-modifying antirheumatic drugs fail is an alternative, but their high cost represents a challenge for decision makers. This study aims to perform cost-effectiveness and cost-utility analysis of biologic alternatives for moderate to severe RA in Colombia, from a public perspective. **METHODS:** An economic analysis was developed through a decision-tree model to